

DEPARTMENT OF REGULATORY AND ECONOMIC RESOURCES (RER) BOARD AND CODE ADMINISTRATION DIVISION

NOTICE OF ACCEPTANCE (NOA)

MIAMI-DADE COUNTY BRODUCT CONTROL SECTION 11805 SW 26 Street, Room 208 T (786) 315-2590 F (786) 315-2599 www.miamidade.gov/economy

Marvin Windows and Doors Highway 11 West (P.O. Box 100) Warroad, MN 56763-0100

Scope:

This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed and accepted by Miami-Dade County RER - Product Control Section to be used in Miami Dade County and other areas where allowed by the Authority Having Jurisdiction (AHJ).

This NOA shall not be valid after the expiration date stated below. The Miami-Dade County Product Control Section (In Miami Dade County) and/or the AHJ (in areas other than Miami Dade County) reserve the right to have this product or material tested for quality assurance purposes. If this product or material fails to perform in the accepted manner, the manufacturer will incur the expense of such testing and the AHJ may immediately revoke, modify, or suspend the use of such product or material within their jurisdiction. RER reserves the right to revoke this acceptance, if it is determined by Miami-Dade County Product Control Section that this product or material fails to meet the requirements of the applicable building code.

This product is approved as described herein, and has been designed to comply with the Florida Building Code, including the High Velocity Hurricane Zone.

DESCRIPTION: Series "StormPlus IZ4 Casemaster Casement" Outswing Wood Casement Window - L.M.I.

APPROVAL DOCUMENT: Drawing No. 1550, titled "Wood Casemaster Casement StormPlus IZ4", sheets 1 through 8 of 8, dated 04/03/08, with revision A1 dated 10/14/11, prepared by W. W. Schaefer Engineering & Consulting, P.A., signed and sealed by Warren W. Schaefer, P.E., bearing the Miami-Dade County Product Control Renewal stamp with the Notice of Acceptance number and expiration date by the Miami-Dade County Product Control Section.

MISSILE IMPACT RATING: Large and Small Missile Impact Resistant

LABELING: Each unit shall bear a permanent label with the manufacturer's name or logo, city, state, model/series, and following statement: "Miami-Dade County Product Control Approved", unless otherwise noted herein.

RENEWAL of this NOA shall be considered after a renewal application has been filed and there has been no change in the applicable building code negatively affecting the performance of this product.

TERMINATION of this NOA will occur after the expiration date or if there has been a revision or change in the materials, use, and/or manufacture of the product or process. Misuse of this NOA as an endorsement of any product, for sales, advertising or any other purposes shall automatically terminate this NOA. Failure to comply with any section of this NOA shall be cause for termination and removal of NOA.

ADVERTISEMENT: The NOA number preceded by the words Miami-Dade County, Florida, and followed by the expiration date may be displayed in advertising literature. If any portion of the NOA is displayed, then it shall be done in its entirety.

INSPECTION: A copy of this entire NOA shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official.

This NOA renews NOA# 11-1021.13 and consists of this page 1 and evidence pages E-1 and E-2, as well as approval document mentioned above.

The submitted documentation was reviewed by Manuel Perez, P.E.

(MIAMIDADE COUNTY)
APPROYED

11/20/13

NOA No. 13-0919.10 Expiration Date: March 04, 2019 Approval Date: November 28, 2013 Page 1

Marvin Windows and Doors

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

A. DRAWINGS

- 1. Manufacturer's die drawings and sections.
- 2. Drawing No. 1550, titled "Wood Casemaster Casement StormPlus IZ4", sheets 1 through 8 of 8, dated 04/03/08, with revision A1 dated 10/14/11, prepared by W. W. Schaefer Engineering & Consulting, P.A, signed and sealed by Warren W. Schaefer, P.E.

(Submitted under previous NOA# 11-1021.13)

B. TESTS

- 1. Test reports on: 1) Air Infiltration Test, per FBC, TAS 202-94
 - 2) Uniform Static Air Pressure Test, Loading per FBC TAS 202-94
 - 3) Water Resistance Test, per FBC, TAS 202-94
 - 4) Large Missile Impact Test per FBC, TAS 201-94
 - 5) Cyclic Wind Pressure Loading per FBC, TAS 203-94
 - 6) Forced Entry Test, per FBC 2411 3.2.1, TAS 202-94

along with marked-up drawings and installation diagram of a "StormPlus IZ4" wood casement window, prepared by Architectural Testing, Inc., Test Report No.

ATI-77675.01-201-18, dated 06/16/08, and addendum letter dated 01/09/09, all signed and sealed by Joseph A. Reed, P.E.

(Submitted under NOA# 08-1014.07)

- 2. Test reports on: 1) Air Infiltration Test, per FBC, TAS 202-94
 - 2) Uniform Static Air Pressure Test, Loading per FBC TAS 202-94
 - 3) Water Resistance Test, per FBC, TAS 202-94
 - 4) Large Missile Impact Test per FBC, TAS 201-94
 - 5) Cyclic Wind Pressure Loading per FBC, TAS 203-94
 - 6) Forced Entry Test, per FBC 2411 3.2.1, TAS 202-94

along with marked-up drawings and installation diagram of "StormPlus IZ4" wood casement window, prepared by Architectural Testing, Inc., Test Report No.

ATI-77676.01-201-18, dated 08/05/08, signed and sealed by Joseph A. Reed, P.E. (Submitted under NOA# 08-1014.07 for reference only)

C. CALCULATIONS

1. Anchor verification calculations and structural analysis, complying with FBC-2007 and FBC-2010, prepared by prepared by W. W. Schaefer Engineering & Consulting, P.A., dated 08/28/08, 12/02/08, and updated on10/14/11, signed and sealed by Warren W. Schaefer, P.E.

(Submitted under previous NOA# 11-1021.13)

2. Glazing complies with ASTM E1300-04

Manuel Perez, P.E. Product Control Examiner NOA No. 13-0919.10

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Marvin Windows and Doors

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D. QUALITY ASSURANCE

1. Miami-Dade Department of Regulatory and Economic Resources (RER)

E. MATERIAL CERTIFICATIONS

1. Notice of Acceptance No. 11-0624.02 issued to E.I. DuPont DeNemours & Co., Inc. for their "DuPont SentryGlas® Interlayer" dated 08/25/11, expiring on 01/14/17.

F. STATEMENTS

- 1. Statement letter of conformance complying with the FBC-2010, dated September 03, 2013, signed and sealed by Warren W. Schaefer, P.E.
- 2. Statement letter of no financial interest, dated September 04, 2013, signed and sealed by Warren W. Schaefer, P.E.
- 3. Laboratory compliance letter for Test Report No. **ATI 77675.01-201-18** issued by Architectural Testing, Inc., dated 09/25/08, signed and sealed by Joseph A. Reed, P.E. (Submitted under previous NOA# 11-1021.12)
- 4. Laboratory compliance letter for Test Report No. **ATI 77676.01-201-18** issued by Architectural Testing, Inc., dated 09/26/08, signed and sealed by Joseph A. Reed, P.E. (Submitted under previous NOA# 11-1021.12)

G. OTHERS

1. Notice of Acceptance No. 11-1021.13, issued to Marvin Windows and Doors for their Series "StormPlus IZ4 Casemaster Casement" Wood Casement Window – L.M.I., approved on 12/22/11 and expiring on 03/04/14.

Manuel Perez, P.E. Product Control Examiner

NOA No. 13-0919.10

Expiration Date: March 04, 2019 Approval Date: November 28, 2013

GENERAL NOTES:

THESE WINDOW SYSTEMS HAVE BEEN TESTED, ANALYZED & APPROVED FOR DESIGN PRESSURES NOT

TO EXCEED THOSE SHOWN IN THE "ALLOWABLE DESIGN PRESSURE TABLE(S).

2. OPENINGS, BUCKING & BUCKING FASTENERS MUST BE PROPERLY DESIGNED & INSTALLED TO TRANSFER WIND LOADS TO THE STRUCTURE.

1KANSTER WIND LOADS TO THE STRUCTURE.

3. ALL HARDWARE & FASTENERS SHALL BE IN ACCORDANCE WITH THESE DRAWINGS & SHALL NOT VARY UNLESS SPECIFICALLY MENTIONED ON THE DRAWINGS, SPECIFIED ANCHOR EMBED TO BASE MATERIAL SHALL BE BEYOND WALL FINISH OR STUCCO.

4. THE DETAILS & SPECIFICATIONS SHOWN HEREIN REPRESENT THE PRODUCTS TESTED & PROPOSED FOR WATER, AIR, IMPACT, CYCLIC & UNIFORM STATIC AIR PRESSURE TESTING IN CONFORMANCE WITH THE FLORIDA BUILDING CODE PROTOCALS TAS-201, 202 & 203 FOR LARGE MISSILE IMPACT WINDOWS. 6. THESE WINDOW SYSTEMS HAVE BEEN DESIGNED IN ACCORDANCE WITH AND MEET THE

REQUIREMENTS OF THE FLORIDA BUILDING CODE (FBC) INCLUDING HIGH VELOCITY HURRICANE ZONES (HVHZ).

6. IMPACT SHUTTERS ARE NOT REQUIRED WITH THESE WINDOWS.
7. ALL ANCHORS SECURING WINDOW FRAME TO PRESSURE TREATED BUCKS OR WOOD FRAMING SHALL BE CAPABLE OF RESISTING CORROSION CAUSED BY THE PRESSURE TREATING CHEMICALS IN THE WOOD.
8. DETERMINE THE POSITIVE & NEGATIVE DESIGN LOADS TO USE WHEN REFERENCING THESE DOCUMENTS IN ACCORDANCE WITH THE GOVERNING CODE AND GOVERNING WIND VELOCITY. FOR WIND LOAD CALCULATIONS IN ACCORDANCE WITH THE FLORIDA BUILDING CODE, A DIRECTIONALITY FACTOR OF

CALCULATIONS IN ACCORDANCE WITH THE FLORIDA BUILDING CODE, A DIRECTIONALITY FACTOR OF Kd = 0.85 MAY BE APPLIED WHEN USED PER THE ASCE 7 STANDARD.

9. NO INCREASE IN ALLOWABLE STRESS HAS BEEN USED IN THE CERTIFICATION OF THIS PRODUCT. WIND LOAD DURATION FACTOR Cd = 1.6 WAS USED FOR WOOD SCREW ANALYSIS ONLY.

10. MATERIALS, INCLUDING BUT NOT LIMITED TO STEEL SCREWS, THAT COME INTO CONTACT WITH OTHER DISSIMILAR MATERIALS SHALL MEET THE REQUIREMENTS OF FLORIDA BUILDING CODE CHAPTER 20.

11. All WOOD MEMBERS OF WINDOWS THAT MAY POSSIBLY COME INTO CONTACT WITH MASONRY OR CONCRETE SUBSTRATES, ARE SUBJECT TO MOISTURE &/OR ARE SUBJECT TO THE OUTSIDE ENVIRONMENT SHALL BE OF AN APPROVED DURABLE SPECIES OR BE TREATED IN AN APPROVED METHOD WITH AN APPROVED PRESERVATIVE PER FBC SECTION 2326.

SNUBBER REQUIREMENTS TABLE (RECTANGULAR WINDOWS)				
MAX. FRAME HEIGHT	MIN. NO. OF SNUBBERS			
71 1/8"	3			
47 3/8"	2			
23 5/8"	1			

LOCK REQUIREMENTS TABLE (RECTANGULAR WINDOWS)				
MAX. FRAME HEIGHT	MIN. NO. OF LOCKS			
71 1/8"	3			
47 3/8"	2			

CORNER CONSTRUCTION (STANDARD RECTANGULAR WINDOWS)

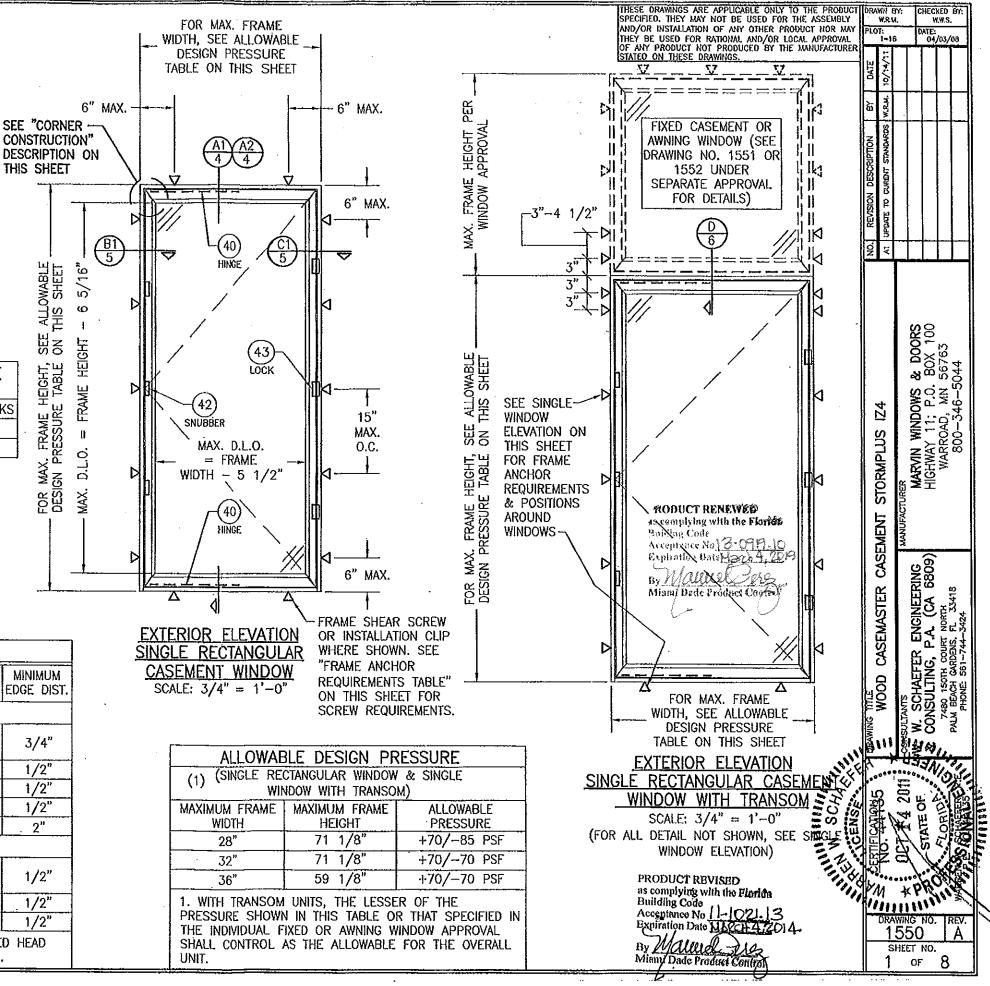
FRAME CORNERS: THE SIDE WOOD MEMBERS ARE BUTTED TO THE HEAD & SILL MEMBERS, SECURED WITH THREE(3) GS16 X 1 1/2" STAPLES THROUGH THE HEAD & SILL INTO THE JAMB & ONE(1) 14 GA. 7/16 X 2" STAPLE THROUGH THE JAMB INTO THE HEAD & SILL & SEALED WITH SEALANT.

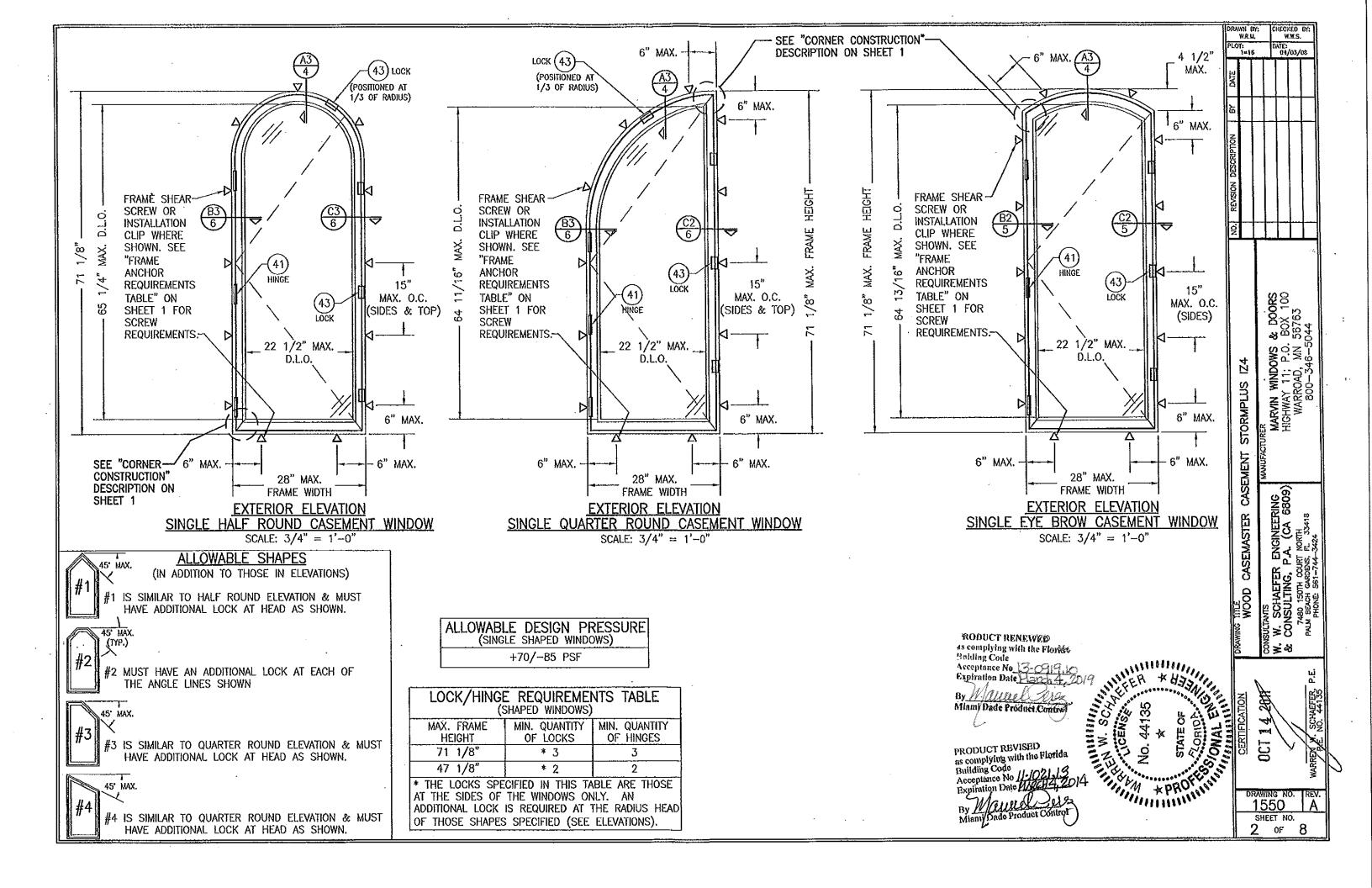
SASH CORNERS: SASH MEMBERS ARE MORTISED & TENONED AND SECURED WITH TWO(2) GS16 X 1 3/8" BRAD

CORNER CONSTRUCTION (SHAPE WINDOWS)

FRAME CORNERS: THE SIDE WOOD MEMBERS ARE BUTTED TO THE HEAD & SILL MEMBERS & SECURED WITH NO. 7 X 2" SCREWS (3 AT SQUARE CORNERS; 4 AT SHAPED CORNERS) AND SEALED WITH SEALANT. SASH_CORNERS; SASH MEMBERS ARE BUTTED TOGETHER, JOINED WITH 2 NO. 7 X 2" TRIM HEAD SCREWS &

FRAME ANCHOR REQUIREMENTS TABLE						
OPENING TYPE (SUBSTRATE)	FRAME/CLIP TO OPENING FASTENER TYPE	MINIMUM EMBED	MINIMUM EDGE DIST.			
FRAME SHEAR SCREWS						
MIN. 2X4 WOOD FRAME OR BUCK (MIN. GR. 3 & G=0.55)	NO. 10 SMS OR WOOD SCREW	1 1/4"	3/4"			
MIN. 18 GA. 33 KSI METAL STUD	NO. 10 GR. 5 SELF TAP/DRILLING SCREW	FULL	1/2"			
MIN. 1/8" THK A36 STEEL	NO. 10 GR. 5 SELF TAP/DRILLING SCREW	FULL	1/2"			
MIN. 1/8" THK 6063-T5 ALUM.	NO. 10 GR. 5 SELF TAP/DRILLING SCREW	FULL	1/2"			
C-90 CMU/2500 PSI CONCRETE	(1) 1/4" CONCRETE SCREW	1 1/4"	2"			
INSTALLATION CLIP SCREWS						
MIN. 2X4 WOOD FRAME OR BUCK (MIN. GR. 3 & G=0.55)	NO. 8 X 1 1/2" SMS	1 3/8"	1/2"			
MIN. 1/8" THK A36 STEEL	NO. 8 GR. 5 SELF TAP/DRILLING SCREW	FULL	1/2"			
MIN. 1/8" THK 6063-T5 ALUM.	NO. 8 GR. 5 SELF TAP/DRILLING SCREW	FULL	1/2"			
(1) CONCRETE SCREWS SHALL BE ELCO ULTRACONS, ELCO CRETE-FLEX, ITW RAMSET/RED HEAD TAPCONS, HILTI KWIK-CON II OR POWERS RAWL TAPPER (HARDENED STEEL OR S.S.).						





ALLOWABLE DESIGN PRESSURE TABLE (SIDE BY SIDE WINDOWS)				
MAXIMUM	MAXIMUM	ALLOWABLE PRESSURE (PSF)		
FRAME HEIGHT	LOAD WIDTH	MULLION CONDITION		
(IN.)	(IN.)	"XX"	"XO"	
	- 52	_	+61.9/61.9	
	48	-	+67.1/-67.1	
	46	_	+70.0/-70.0	
71 1/0	42	-	+70.0/76.7	
71 1/8	37	<u> </u>	+70.0/-85.0	
	32	+70.0/-70.0	+70.0/85.0	
	28	+70.0/-80.0	+70.0/-85.0	
	26	+70.0/-85.0	+70.0/-85.0	
	52	-	+70.0/71.8	
	49	_	+70.0/−71.8	
	48		+70.0/73.3	
65 1/8	46		+70.0/76.4	
	42	-	+70.0/~83.7	
	40	_	+70.0/-85.0	
}	32	+70.0/-76.4	+70.0/-85.0	
	28	+70.0/-85.0	+70.0/-85.0	
	54	-	+70.0/-80.7	
	48		+70.0/-80.7	
59 1/8	46	+	+70.0/-84.2	
	45	– .	+70.0/-85.0	
	36	+70.0/-74.9	+70.0/-85.0	
	32	+70.0/-84.2	+70.0/85.0	
	31	+70.0/-85.0	+70.0/-85.0	
53 1/8	54	_	+70.0/-85.0	
	36	+70.0/-83.3	+70.0/-85.0	
	35	+70.0/85.0	+70.0/-85.0	
47 1/8	54		+70.0/-85.0	
77 1/0	36	+70.0/-85.0	+70.0/-85.0	

LESSER OF THE PRESSURE SHOWN IN THIS TABLE & THAT ALLOWED FOR THE INDIVIDUAL WINDOW SHALL CONTROL AS ALLOWABLE FOR THE OVERALL UNIT.

THE VALUES IN THIS TABLE APPLY TO BOTH BAR REINFORCED & NON-REINFORCED MULLION CONDITIONS.

ADD 3/8" TO LOAD WIDTH VALUES IN THIS TABLE WHEN 3/8" ALUMINUM REINFORCEMENT PLATE IS USED.

LOAD WIDTH IS THE DISTANCE BETWEEN THE WINDOW CENTERLINES.

"XX" = MULLION BETWEEN 2 OPERABLE WINDOWS.
"XO" = MULLION BETWEEN AN OPERABLE & FIXED WINDOW.

